

Title (en)

VIBRATION DAMPER

Publication

**EP 0249381 B1 19900207 (EN)**

Application

**EP 87304871 A 19870602**

Priority

GB 8614322 A 19860612

Abstract (en)

[origin: EP0249381A1] A damper assembly comprises a cylinder I enclosing a plunger 3 mounted on a piston rod 4 and associated with an auxiliary plunger 6 which is yieldably held against the main plunger 3 by a spring 7. Ascent of the cylinder I relative to the plunger 3 allows a high damping force to be obtained by causing the damping liquid to pass around the exterior of the main plunger 3, along a first flow path, whereas descent of the cylinder allows the spring 7 to yield and to open a larger cross-section third flow path between the auxiliary plunger 6 and the main plunger 3 for a lower damping force to be obtained. The damping force exerted in the first-mentioned direction is limited by the effect of a pressure relief valve I0 which opens to allow flow of hydraulic fluid through the auxiliary plunger 6 along a second flow path once a predetermined damper force has been attained. The cylinder I is coaxially surrounded by a pre-load spring I7. The damper is incorporated in an anti-bounce package support in a yarn winder.

IPC 1-7

**B65H 54/52; F16F 9/50**

IPC 8 full level

**B65H 54/52** (2006.01); **F16F 9/516** (2006.01)

CPC (source: EP US)

**B65H 54/52** (2013.01 - EP US); **F16F 9/516** (2013.01 - EP US); **B65H 2601/524** (2013.01 - EP US); **B65H 2701/31** (2013.01 - EP US)

Cited by

FR2681586A1; US5692367A

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